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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,207	07/01/2005	Dirk Weber	10191/4226	7657

26646 7590 01/26/2007
KENYON & KENYON LLP
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EXAMINER

PIPALA, EDWARD J

ART UNIT	PAPER NUMBER
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3663

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/541,207

Applicant(s)

WEBER ET AL.

Examiner

Edward Pipala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/1/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to the application filed 7/1/05 by Weber et al., for the invention titled "Device for the Classification of a Least One Object by means of an Environmental Sensor".

Claims 1-10 have been canceled, new claims 11-30 have been added by preliminary amendment.

Drawings

2. The drawing of Fig. 2 is objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "24" has been used to designate both Crashparameter and Steuerung Rückhalte-systeme.

The drawings of Figures 2 and 3 (?) are further objected to because Fig. 2 is not labeled in English, and because the lowermost drawing (possibly a figure 3) does not have its block diagram components labeled (in any language), nor to be labeled as being any particular Figure number (i.e., Fig. 3).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

3. The IDS submitted with the application of 7/1/05 has been fully considered by the Examiner as indicated by the accompanying initialed copy of Applicant's form PTO-1449 (or equivalent).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of dependent claims 14-16 recite "wherein the device *may* be coupled to a restraint system" (emphasis added), accordingly Applicant has failed to particularly point out and distinctly claim whether or not the device as recited in previous claims 11, 12 or 13 has coupled to it a restraint system.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kellum (Pub. 2004/0153244 A1).

With respect to claims 11-13, in which a device for classifying at least one object with respect to its detected velocity and acceleration and their respective reference values as a characteristic of time, please see section 0002 of Kellum, which discloses a collision warning system (CWS) intended to mitigate and/or eliminate vehicle impacts by generating a timely warning to the driver to take an evasive action. Such a vehicle is configured with a sensor (or sensors) that is/are capable of detecting objects in the frontal area of the vehicle. The sensor not only detects the presence of an object, but also provides some quantitative information about the object such as range, range rate, and azimuth position of the object. Additional information related to the object (e.g., a lead vehicle in many instances) may include relative acceleration, the size of the object, the dimensions of the object, the direction of movement of the object, etc. The following section (0003) further discloses the use of a path prediction algorithm and a threat assessment algorithm, which evaluate the incoming data, analyze the particular situation, and then determine if there is any imminent threat of impacting an object in the frontal area of the vehicle, where many of these algorithms are based on parameters such as "time to impact", "time headway", or perhaps basic vehicle kinematics.

With respect to claims 14-16, which recite that the device may be coupled to a restraint system, please see the initial portion of section 0002 in which it is disclosed that the collision warning system is intended to mitigate and/or eliminate vehicle impacts.

With respect to claims 17- 20 which recite "that the velocity (VO) is determined with the aid of a reference velocity(VE)", and claims 21-24 which similarly recite "wherein the velocity (VO) is determined on the basis of a time characteristic of location information", please see the afore mentioned section of section 0002 in which it clearly teaches that typically a vehicle is configured with a sensor (or sensors) that is capable of detecting objects in the frontal area of the vehicle, and that the sensor not only detects the presence of an object but also provides some quantitative information about the object such as range, range rate, and azimuth position of the object. Additionally, information related to the object (e.g., a lead vehicle in many instances) may include relative acceleration, the size of the object, the dimensions of the object, the direction of movement of the object, etc.

With respect to claims 25-30 which recite the use of at least one photonic mixer in a Lidar type environmental sensor system, for haptically outputting information to the driver as a function of object classification, please see sections 0014 and 0015 which clearly disclose object detection in conjunction with threat assessment by determining the location, speed, acceleration, etc. of an object as part of a driver warning system

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which warns a driver haptically or by a buzzer, warning light or other type of feedback, that there is a likelihood of an impact.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Pipala whose telephone number is 571-272-1360. The examiner can normally be reached on M-F 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


ejp


JACK KEITH
SUPERVISORY PATENT EXAMINER